

WHAT IS CLAIMED IS:

1. An IL-34 antisense oligonucleotide comprising a nucleotide sequence selected from the group consisting of:

5'-CTCACCAAGACCCACAG-3' (SEQ ID NO:1), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage;

5'-GGCTTTGGGCCCGCACCAGCT-3' (SEQ ID NO:2), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage;

5'-CTTTGGGCCCGCACCAGCTTC-3' (SEQ ID NO:3), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage;

5'-TGGGCCCGCACCAGCTTCAGG-3' (SEQ ID NO:4), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage;

5'-TCCATGACCCGGAAGCAGTT-3' (SEQ ID NO:5), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage; and

5'-TGTTTCATGTACTGAAG-3' (SEQ ID NO:6), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage,

or

a pharmaceutically acceptable salt thereof.

2. The antisense oligonucleotide of claim 1, wherein the nucleotide sequence is SEQ ID NO:3, and wherein at least one cytidine is chemically modified.

3. The antisense oligonucleotide of claim 2, wherein the nucleotide sequence is 5'-CTTTGGGCXGCACCAGCTTC-3' (SEQ ID NO:7), and wherein X is 5-methylcytidine.
4. The antisense oligonucleotide of claim 1, wherein the nucleotide sequence is SEQ ID NO:5, and wherein at least one cytidine is chemically modified; optionally wherein the cytidine at position 10 of SEQ ID NO:5 is chemically modified and the nucleotide sequence is 5'-TCCATGACCXGGAAGCAGTT-3' (SEQ ID NO:8), and wherein X is 5-methylcytidine.
5. The antisense oligonucleotide of any one of claims 1-4, wherein the antisense oligonucleotide comprises one or more locked nucleic acids (LNA).
6. The antisense oligonucleotide of any one of claims 1-5, wherein each of the nucleotides of the antisense oligonucleotide comprises a locked nucleic acid (LNA).
7. An IL-34 antisense oligonucleotide of comprising a nucleotide sequence selected from the group consisting of:
 - 5'-cttTGGGCXGCACCAGCttc-3' (SEQ ID NO:9), wherein c is LNA cytidine, t is LNA thymidine, and X is 5-methylcytidine;
 - 5'-ctttGGGCXGCACCAGcttc-3' (SEQ ID NO:10), wherein c is LNA cytidine, t is LNA thymidine, and X is 5-methylcytidine;
 - 5'-cttTGGGCcgCACCAGCttc-3' (SEQ ID NO:11), wherein c is LNA cytidine, t is LNA thymidine, and g is LNA guanosine;
 - 5'-cttTGGGCcGCACCAGCttc-3' (SEQ ID NO:12), wherein c is LNA cytidine and t is LNA thymidine;
 - 5'-ggcXGCACCAGCttc-3' (SEQ ID NO:13), wherein c is LNA cytidine, t is LNA thymidine, g is LNA guanosine, and X is 5-methylcytidine;
 - 5'-cttTGGGCXGCACcag-3' (SEQ ID NO:14), wherein c is LNA cytidine, t is LNA thymidine, g is LNA guanosine, a is LNA adenosine, and X is 5-methylcytidine; and

5'-tgaCCXGGAAGCAgtt-3' (SEQ ID NO:15), wherein a is LNA adenosine, t is LNA thymidine, g is LNA guanosine, and X is 5-methylcytidine, or

a pharmaceutically acceptable salt thereof.

8. An IL-34 antisense oligonucleotide of comprising a nucleotide sequence selected from the group consisting of:

5'-CxTxTxTxGxGGCXGCACCAGxCxTxTxCx-3' (SEQ ID NO:16), wherein Cx is 2'-O-(2-methoxyethyl)cytidine, Tx is 2'-O-(2-methoxyethyl)thymidine, Gx is 2'-O-(2-methoxyethyl)guanosine, and X is 5-methylcytidine;

5'-TxCxCxAxTxGACCXGGAAGCxAxGxTxTx-3' (SEQ ID NO:17), wherein Cx is 2'-O-(2-methoxyethyl)cytidine, Tx is 2'-O-(2-methoxyethyl)thymidine, Gx is 2'-O-(2-methoxyethyl)guanosine, Ax is 2'-O-(2-methoxyethyl)adenosine, and X is 5-methylcytidine;

5'-CxTxTxTxGxGxGCXGCACCxGxCxTxTxCx-3' (SEQ ID NO:18), wherein Cx is 2'-O-(2-methoxyethyl)cytidine, Tx is 2'-O-(2-methoxyethyl)thymidine, Gx is 2'-O-(2-methoxyethyl)guanosine, Ax is 2'-O-(2-methoxyethyl)adenosine, and X is 5-methylcytidine;

5'-TxCxCxAxTxGxACCXGGAAGxCxAxGxTxTx-3' (SEQ ID NO:19), wherein Cx is 2'-O-(2-methoxyethyl)cytidine, Tx is 2'-O-(2-methoxyethyl)thymidine, Gx is 2'-O-(2-methoxyethyl)guanosine, Ax is 2'-O-(2-methoxyethyl)adenosine, and X is 5-methylcytidine;

5'-CxTxTxTxGxGxGxCxXGxCxAxCxCxAxGxCxTxTxCx-3' (SEQ ID NO:20), wherein Cx is 2'-O-(2-methoxyethyl)cytidine, Tx is 2'-O-(2-methoxyethyl)thymidine, Gx is 2'-O-(2-methoxyethyl)guanosine, Ax is 2'-O-(2-methoxyethyl)adenosine, and X is 5-methylcytidine; and

5'-TxCxCxAxTxGxGxCxXGxGxCxGxCxGxCxTxTx-3' (SEQ ID NO:21), wherein Cx is 2'-O-(2-methoxyethyl)cytidine, Tx is 2'-O-(2-methoxyethyl)thymidine, Gx

is 2'-*O*-(2-methoxyethyl)guanosine, Ax is 2'-*O*-(2-methoxyethyl)adenosine, and X is 5-methylcytidine, or

a pharmaceutically acceptable salt thereof.

9. The antisense oligonucleotide of any one of claims 1-8, wherein the antisense oligonucleotide comprises one or more ribonucleotides.
10. The antisense oligonucleotide of any one of claims 1-8, wherein the antisense oligonucleotide comprises one or more deoxyribonucleotides.
11. The antisense oligonucleotide of any one of claims 1-8, wherein the antisense oligonucleotide comprises a mixture of ribonucleotides and deoxyribonucleotides.
12. The antisense oligonucleotide of any one of claim 1-11, wherein at least one internucleoside linkage of the sequence is selected from the group consisting of a phosphorothioate linkage, a phosphorodithioate linkage, a phosphotriester linkage, an alkylphosphonate linkage, an aminoalkylphosphotriester linkage, an alkylene phosphonate linkage, a phosphinate linkage, a phosphoramidate linkage, and an aminoalkylphosphoramidate linkage, a thiophosphoramidate linkage, thionoalkylphosphonate linkage, a thionoalkylphosphotriester linkage, a thiophosphate linkage, a selenophosphate linkage, and a boranophosphate linkage.
13. The antisense oligonucleotide of any one of claims 1-12, wherein at least one internucleoside linkage of the sequence is a phosphorothioate linkage.
14. The antisense oligonucleotide any one of claims 1-13, wherein all internucleoside linkages of the sequence are phosphorothioate linkages.
15. The antisense oligonucleotide of any one of claims 1-14, wherein one or more cytidines are replaced with 5-methylcytidine.
16. The antisense oligonucleotide of any one of claims 1-15 wherein the antisense oligonucleotide is 20 nucleotides in length or 20-25, 20-30, 20-35, 25-30, 25-35, or 30-35 nucleotides in length.

17. The antisense oligonucleotide of claim 16, wherein the antisense oligonucleotide is from 20-25 nucleotides in length.
18. The antisense oligonucleotide of any one of claims 1-15, wherein the antisense oligonucleotide is no more than 20, 25, 30, or 35 nucleotides in length.
19. A compound comprising an antisense oligonucleotide of any one of claims 1-18 or a pharmaceutically acceptable salt thereof.
20. A compound comprising an antisense oligonucleotide of any one of claims 1-3 and 5-18, wherein the antisense oligonucleotide comprises the nucleotide sequence of SEQ ID NO:3, and wherein at least one cytidine is chemically modified, or a pharmaceutically acceptable salt thereof.
21. The compound of claim 20, wherein the antisense oligonucleotide comprises the nucleotide sequence 5'-CTTTGGGCXGCACCAGCTTC-3' (SEQ ID NO:7), and wherein X is 5-methylcytidine.
22. A method of treating an inflammatory disease, the method comprising administering to a patient in need thereof an effective amount of an IL-34 antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.
23. A method of inhibiting inflammatory cytokine production in cells of a patient suffering from an inflammatory disease, the method comprising administering an effective amount of an IL-34 antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.
24. A method of reducing or inhibiting an IL-34 mediated inflammatory response in cells of a patient suffering from an inflammatory disease, the method comprising administering an effective amount of an IL-34 antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.
25. A method of treating an inflammatory disease associated with altered IL-34 expression in a patient in need thereof, the method comprising administering an effective amount of an IL-34

antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.

26. A method of inhibiting IL-34-mediated macrophage colony-stimulating factor receptor (M-CSFR-1) signaling in cells of a patient suffering from an inflammatory disease, the method comprising administering an effective amount of an IL-34 antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.

27. A method of reducing or eliminating a fibrotic stricture in a patient suffering from an inflammatory disease, the method comprising administering an effective amount of an IL-34 antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.

28. The method of claim 27, wherein the fibrotic stricture is located in the intestine.

29. The method of any one of claims 22-28, wherein said inflammatory disease is selected from the group consisting of an inflammatory bowel disease, rheumatoid arthritis, psoriasis, osteoarthritis, diabetes (type I and II), tissue or organ rejection, multiple sclerosis, periodontal inflammation, periodontitis, pigmented villonodular synovitis, hepatitis, sinusitis, colon cancer, colorectal cancer, colitis-associated colon cancer, sporadic colorectal cancer, coronary artery disease, Sjogren's syndrome (SS), obesity, chronic inflammation, pulmonary sarcoidosis, skin lesions, a CNS inflammatory disease, or an autoimmune disease.

30. The method of claim 29, wherein said inflammatory disease is an inflammatory bowel disease.

31. The method of claim 30, wherein said inflammatory bowel disease is selected from the group consisting of Crohn's disease, gastroduodenal Crohn's disease, Crohn's (granulomatous) colitis, inflammatory Crohn's disease, fibrostricturing Crohn's disease, ulcerative colitis, collagenous colitis, lymphocytic colitis, ischaemic colitis, diversion colitis, Behçet's disease, microscopic colitis, ulcerative proctitis, proctosigmoiditis, jejunoileitis, left-sided colitis, pancolitis, ileocolitis, ileitis, and indeterminate colitis.

32. The method of claim 31, wherein said inflammatory bowel disease is inflammatory Crohn's disease.
33. The method of claim 31, wherein said inflammatory bowel disease is fibrostricturing Crohn's disease.
34. The method of any one of claims 22-33, wherein the IL-34 antisense oligonucleotide is administered topically, parenterally, orally, pulmonarily, intratracheally, intranasally, transdermally, or intraduodenally.
35. The method of claim 34, wherein the IL-34 antisense oligonucleotide is administered orally.
36. The method of any one of claims 22-35, wherein the patient is a human.
37. A pharmaceutically acceptable composition comprising an IL-34 antisense oligonucleotide of any one of claims 1-18, or a pharmaceutically acceptable salt thereof, or a compound of any one of claims 19-21, and a pharmaceutically acceptable excipient.
38. The pharmaceutical composition of claim 37, wherein the pharmaceutical composition is suitable for topical, parenteral, oral, pulmonary, intratracheal, intranasal, transdermal, or intraduodenal administration.
39. Use of an IL-34 antisense oligonucleotide of any one of claims 1-18, or a pharmaceutically acceptable salt thereof, or a compound of any one of claims 19-21, in the manufacture of a medicament for the treatment of an inflammatory disease.
40. The use of claim 39, wherein said inflammatory disease is selected from the group consisting of an inflammatory bowel disease, rheumatoid arthritis, psoriasis, osteoarthritis, diabetes (type I and II), tissue or organ rejection, multiple sclerosis, periodontal inflammation, periodontitis, pigmented villonodular synovitis, hepatitis, sinusitis, colon cancer, colorectal cancer, colitis-associated colon cancer, sporadic colorectal cancer, coronary artery disease, or Sjogren's syndrome (SS), obesity, chronic inflammation, pulmonary sarcoidosis, skin lesions, a CNS inflammatory disease, or an autoimmune disease.

41. The use of claim 40, wherein said inflammatory disease is an inflammatory bowel disease.
42. The use of claim 41, wherein the inflammatory bowel disease is selected from the group consisting of Crohn's disease, inflammatory Crohn's disease, fibrostricturing Crohn's disease, gastroduodenal Crohn's disease, Crohn's (granulomatous) colitis, ulcerative colitis, collagenous colitis, lymphocytic colitis, ischaemic colitis, diversion colitis, Behçet's disease, microscopic colitis, ulcerative proctitis, proctosigmoiditis, jejunoileitis, left-sided colitis, pancolitis, ileocolitis, ileitis, and indeterminate colitis.
43. The use of claim 42, wherein said inflammatory bowel disease is inflammatory Crohn's disease.
44. The use of claim 42, wherein said inflammatory bowel disease is fibrostricturing Crohn's disease.
45. A method of inhibiting IL-34 expression in a cell of a subject, the method comprising administering to the subject a pharmaceutically effective amount of a pharmaceutical preparation comprising an IL-34 antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.
46. A method of inhibiting expression of one or more collagens in a cell of a subject, the method comprising administering to the subject a pharmaceutically effective amount of a pharmaceutical preparation comprising an IL-34 antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.
47. The method of claim 45 or 46, wherein the cell is an intestinal cell.
48. The method of claim 47, wherein the cell is an intestinal stromal cell.
49. The method of claim 45 or 46, wherein the cell forms part of an intestinal fibrostricture.
50. The method of claim 45 or 46, wherein the subject is in need of treatment of a disease selected from inflammatory Crohn's disease or fibrostricturing Crohn's disease.

51. The method of claim 46, wherein the one or more collagens is selected from the group consisting of collagen 1A, collagen 3A, and a mixture thereof.
52. The method of claim 45 or 46, wherein the pharmaceutical preparation is administered orally.
53. The method of claim 45 or 46, wherein the subject is a human.
54. A method for preventing or treating fibrosis, the method comprising administering to a patient in need thereof a therapeutically effective amount of an IL-34 antisense oligonucleotide, or a pharmaceutically acceptable salt thereof, of any one of claims 1-18, or a compound of any one of claims 19-21.
55. The method of claim 54, wherein the fibrosis is intestinal fibrosis.
56. The method of claim 54, wherein the fibrosis is pulmonary fibrosis.
57. The method of claim 54, wherein the fibrosis is selected from the group consisting of renal fibrosis, cardiac fibrosis, endomyocardial fibrosis, myelofibrosis, retroperitoneal fibrosis, and nephrogenic systemic fibrosis.
58. A method of preventing or treating intestinal fibrosis, the method comprising administering to a patient in need thereof, a pharmaceutically effective amount of a pharmaceutical preparation comprising an IL-34 antisense oligonucleotide of any one of claims 1-18, or a pharmaceutically acceptable salt thereof, or a compound of any one of claims 19-21.
59. The method of claim 58, wherein the pharmaceutical preparation is administered orally.
60. The method of claim 58 or 59, wherein the patient is a human.
61. The method of any one of claims 58-60, wherein the patient is also suffering from Crohn's disease.
62. A method of preventing or treating pulmonary fibrosis, the method comprising administering to a patient in need thereof, a pharmaceutically effective amount of a

pharmaceutical preparation comprising an IL-34 antisense oligonucleotide of any one of claims 1-18, or a pharmaceutically acceptable salt thereof, or a compound of any one of claims 19-21.

63. The method of claim 62, wherein the pharmaceutical preparation is administered orally.

64. The method of claim 62 or 63, wherein the patient is human.

65. An IL-34 antisense oligonucleotide of any one of claims 1-18, or a pharmaceutically acceptable salt thereof, or a compound of any one of claims 19-21 for use as a medicament.

66. An IL-34 antisense oligonucleotide of any one of claims 1-18, or a pharmaceutically acceptable salt thereof, or a compound of any one of claims 19-21 for use in the treatment of an inflammatory disease.

67. The IL-34 antisense oligonucleotide for use as claimed in claim 66, wherein said inflammatory disease is selected from the group consisting of an inflammatory bowel disease, rheumatoid arthritis, psoriasis, osteoarthritis, diabetes (type I and II), tissue or organ rejection, multiple sclerosis, periodontal inflammation, periodontitis, pigmented villonodular synovitis, hepatitis, sinusitis, colon cancer, colorectal cancer, colitis-associated colon cancer, sporadic colorectal cancer, coronary artery disease, or Sjogren's syndrome (SS), obesity, chronic inflammation, pulmonary sarcoidosis, skin lesions, a CNS inflammatory disease, or an autoimmune disease.

68. The IL-34 antisense oligonucleotide for use as claimed in claim 67, wherein said inflammatory disease is an inflammatory bowel disease.

69. The IL-34 antisense oligonucleotide for use as claimed in claim 68, wherein the inflammatory bowel disease is selected from the group consisting of Crohn's disease, inflammatory Crohn's disease, fibrostricturing Crohn's disease, gastroduodenal Crohn's disease, Crohn's (granulomatous) colitis, ulcerative colitis, collagenous colitis, lymphocytic colitis, ischaemic colitis, diversion colitis, Behçet's disease, microscopic colitis, ulcerative proctitis, proctosigmoiditis, jejunoileitis, left-sided colitis, pancolitis, ileocolitis, ileitis, and indeterminate colitis.

70. The IL-34 antisense oligonucleotide for use as claimed in claim 69, wherein the inflammatory bowel disease is inflammatory Crohn's disease.
71. The IL-34 antisense oligonucleotide for use as claimed in claim 69, wherein the inflammatory bowel disease is fibrostricturing Crohn's disease.
72. An IL-34 antisense oligonucleotide of any one of claims 1-18, or a pharmaceutically acceptable salt thereof, for use in the treatment of fibrosis.
73. The IL-34 antisense oligonucleotide for use as claimed in claim 72, wherein the fibrosis is intestinal fibrosis.
74. The IL-34 antisense oligonucleotide for use as claimed in claim 72, wherein the fibrosis is pulmonary fibrosis.
75. The IL-34 antisense oligonucleotide for use as claimed in claim 72, wherein the fibrosis is selected from the group consisting of renal fibrosis, cardiac fibrosis, endomyocardial fibrosis, myelofibrosis, retroperitoneal fibrosis, and nephrogenic systemic fibrosis.
76. An IL-34 inhibitor comprising a nucleotide sequence selected from the group consisting of:
- 5'-CTCACCAAGACCCACAG-3' (SEQ ID NO:1), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage;
- 5'-GGCTTTGGGCCCGCACCAGCT-3' (SEQ ID NO:2), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage;
- 5'-CTTTGGGCCCGCACCAGCTTC-3' (SEQ ID NO:3), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage;

5'-TGGGCCGCACCAGCTTCAGG-3' (SEQ ID NO:4), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage;

5'-TCCATGACCCGGAAGCAGTT-3' (SEQ ID NO:5), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage; and 5'-TGTTTCATGTACTGAAG-3' (SEQ ID NO:6), wherein at least one nucleoside is a chemically modified nucleoside and/or at least one linkage is a modified internucleoside linkage,

or

a pharmaceutically acceptable salt thereof.

77. The IL-34 inhibitor of claim 76, wherein the nucleotide sequence is SEQ ID NO:3, and wherein at least one cytidine is a chemically modified.

78. The IL-34 inhibitor of claim 77, wherein the nucleotide sequence is 5'-CTTTGGGCXGCACCAGCTTC-3' (SEQ ID NO:7), and wherein X is 5-methylcytidine.

79. The IL-34 inhibitor of claim 76, wherein the nucleotide sequence is SEQ ID NO:5, and wherein at least one cytidine is chemically modified; optionally wherein the cytidine at position 10 of SEQ ID NO:5 is chemically modified and the nucleotide sequence is 5'-TCCATGACCXGGAAGCAGTT-3' (SEQ ID NO:8), and wherein X is 5-methylcytidine.

80. The IL-34 inhibitor of any one of claims 76-79, wherein the antisense oligonucleotide comprises one or more locked nucleic acids (LNA).

81. The IL-34 inhibitor of claim 76-80, wherein each of the nucleotides of the antisense oligonucleotide comprises a locked nucleic acid (LNA).

82. The IL-34 inhibitor of any one of claims 76-81, wherein the IL-34 inhibitor is an IL-34 siRNA, or a pharmaceutically acceptable salt thereof.

83. The IL-34 inhibitor of claim 82, wherein at least one internucleoside linkage of the sequence is selected from the group consisting of a phosphorothioate linkage, a phosphorodithioate linkage, a phosphotriester linkage, an alkylphosphonate linkage, an aminoalkylphosphotriester linkage, an alkylene phosphonate linkage, a phosphinate linkage, a phosphoramidate linkage, and an aminoalkylphosphoramidate linkage, a thiophosphoramidate linkage, thionoalkylphosphonate linkage, a thionoalkylphosphotriester linkage, a thiophosphate linkage, a selenophosphate linkage, and a boranophosphate linkage.
84. The IL-34 inhibitor of claim 82 or 83, wherein at least one internucleoside linkage of the sequence is a phosphorothioate linkage.
85. The IL-34 inhibitor any one of claims 82-84, wherein all internucleoside linkages of the sequence are phosphorothioate linkages.
86. The IL-34 inhibitor of any one of claims 82-85, wherein one or more cytidines are replaced with 5-methylcytidine.
87. The IL-34 inhibitor of any one of claims 82-86 wherein the IL-34 siRNA is 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 20-25, 20-30, or 25-30 nucleotides in length.
88. The IL-34 inhibitor of claim 87, wherein the IL-34 siRNA is from 20-25 nucleotides in length.
89. The IL-34 inhibitor of any one of claims 82-86, wherein the IL-34 siRNA is no more than 20, 25, or 30 nucleotides in length.
90. A method of treating an inflammatory disease, the method comprising administering to a patient in need thereof an effective amount of an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.
91. A method of inhibiting inflammatory cytokine production in cells of a patient suffering from an inflammatory disease, the method comprising administering an effective amount of an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.

92. A method of reducing or inhibiting an IL-34 mediated inflammatory response in cells of a patient suffering from an inflammatory disease, the method comprising administering an effective amount of an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.
93. A method of treating an inflammatory disease associated with altered IL-34 expression in a patient in need thereof, the method comprising administering an effective amount of an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.
94. A method of inhibiting IL-34-mediated macrophage colony-stimulating factor receptor (M-CSFR-1) signaling in cells of a patient suffering from an inflammatory disease, the method comprising administering an effective amount of an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.
95. A method of reducing or eliminating a fibrotic stricture in a patient suffering from an inflammatory disease, the method comprising administering an effective amount of an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.
96. The method of claim 95, wherein the fibrotic stricture is located in the intestine.
97. The method of any one of claims 90-96, wherein said inflammatory disease is selected from the group consisting of an inflammatory bowel disease, rheumatoid arthritis, psoriasis, osteoarthritis, diabetes (type I and II), tissue or organ rejection, multiple sclerosis, periodontal inflammation, periodontitis, pigmented villonodular synovitis, hepatitis, sinusitis, colon cancer, colorectal cancer, colitis-associated colon cancer, sporadic colorectal cancer, coronary artery disease, Sjogren's syndrome (SS), obesity, chronic inflammation, pulmonary sarcoidosis, skin lesions, a CNS inflammatory disease, or an autoimmune disease.
98. The method of claim 97, wherein said inflammatory disease is an inflammatory bowel disease.
99. The method of claim 98, wherein said inflammatory bowel disease is selected from the group consisting of Crohn's disease, gastroduodenal Crohn's disease, Crohn's (granulomatous) colitis, inflammatory Crohn's disease, fibrostricturing Crohn's disease, ulcerative colitis,

collagenous colitis, lymphocytic colitis, ischaemic colitis, diversion colitis, Behçet's disease, microscopic colitis, ulcerative proctitis, proctosigmoiditis, jejunoileitis, left-sided colitis, pancolitis, ileocolitis, ileitis, and indeterminate colitis.

100. The method of claim 99, wherein said inflammatory bowel disease is inflammatory Crohn's disease.

101. The method of claim 99, wherein said inflammatory bowel disease is fibrostricturing Crohn's disease.

102. The method of any one of claims 90-101, wherein the IL-34 inhibitor is administered topically, parenterally, orally, pulmonarily, intratracheally, intranasally, transdermally, or intraduodenally.

103. The method of claim 102, wherein the IL-34 inhibitor is administered orally.

104. The method of any one of claims 90-103, wherein the patient is a human.

105. A pharmaceutically acceptable composition comprising an IL-34 inhibitor of any one of claims 76-89, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

106. The method of claim 105, wherein the pharmaceutical composition is suitable for topical, parenteral, oral, pulmonary, intratracheal, intranasal, transdermal, or intraduodenal administration.

107. Use of an IL-34 inhibitor of any one of claims 76-89, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment of an inflammatory disease.

108. The use of claim 107, wherein said inflammatory disease is selected from the group consisting of an inflammatory bowel disease, rheumatoid arthritis, psoriasis, osteoarthritis, diabetes (type I and II), tissue or organ rejection, multiple sclerosis, periodontal inflammation, periodontitis, pigmented villonodular synovitis, hepatitis, sinusitis, colon cancer, colorectal cancer, colitis-associated colon cancer, sporadic colorectal cancer, coronary artery disease, or

Sjogren's syndrome (SS), obesity, chronic inflammation, pulmonary sarcoidosis, skin lesions, a CNS inflammatory disease, or an autoimmune disease.

109. The use of claim 108, wherein said inflammatory disease is an inflammatory bowel disease.

110. The use of claim 109, wherein the inflammatory bowel disease is selected from the group consisting of Crohn's disease, inflammatory Crohn's disease, fibrostricturing Crohn's disease, gastroduodenal Crohn's disease, Crohn's (granulomatous) colitis, ulcerative colitis, collagenous colitis, lymphocytic colitis, ischaemic colitis, diversion colitis, Behçet's disease, microscopic colitis, ulcerative proctitis, proctosigmoiditis, jejunoileitis, left-sided colitis, pancolitis, ileocolitis, ileitis, and indeterminate colitis.

111. The use of claim 110, wherein said inflammatory bowel disease is inflammatory Crohn's disease.

112. The use of claim 110, wherein said inflammatory bowel disease is fibrostricturing Crohn's disease.

113. A method of inhibiting IL-34 expression in a cell of a subject, the method comprising administering to the subject a pharmaceutically effective amount of a pharmaceutical preparation comprising an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.

114. A method of inhibiting expression of one or more collagens in a cell of a subject, the method comprising administering to the subject a pharmaceutically effective amount of a pharmaceutical preparation comprising an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.

115. The method of claim 113 or 114, wherein the cell is an intestinal cell.

116. The method of claim 115, wherein the cell is an intestinal stromal cell.

117. The method of claim 113 or 114, wherein the cell forms part of an intestinal fibrostricture.

118. The method of claim 113 or 114, wherein the subject is in need of treatment of a disease selected from inflammatory Crohn's disease or fibrostricturing Crohn's disease.
119. The method of claim 114, wherein the one or more collagens is selected from the group consisting of collagen 1A, collagen 3A, and a mixture thereof.
120. The method of claim 113 or 114, wherein the pharmaceutical preparation is administered orally.
121. The method of claim 113 or 114, wherein the subject is a human.
122. A method for preventing or treating fibrosis, the method comprising administering to a patient in need thereof a therapeutically effective amount of an IL-34 inhibitor, or a pharmaceutically acceptable salt thereof, of any one of claims 76-89.
123. The method of claim 122, wherein the fibrosis is intestinal fibrosis.
124. A method of preventing or treating intestinal fibrosis, the method comprising administering to a patient in need thereof, a pharmaceutically effective amount of a pharmaceutical preparation comprising an IL-34 inhibitor of any one of claims 76-89, or a pharmaceutically acceptable salt thereof.
125. The method of claim 124, wherein the pharmaceutical preparation is administered orally.
126. The method of claim 124 or 125, wherein the patient is a human.
127. The method of any one of claims 124-126, wherein the patient is also suffering from Crohn's disease.
128. An IL-34 inhibitor of any one of claims 76-89, or a pharmaceutically acceptable salt thereof, for use as a medicament.
129. An IL-34 inhibitor of any one of claims 76-89, or a pharmaceutically acceptable salt thereof, for use in the treatment of an inflammatory disease.

130. The IL-34 inhibitor for use as claimed in claim 129, wherein said inflammatory disease is selected from the group consisting of an inflammatory bowel disease, rheumatoid arthritis, psoriasis, osteoarthritis, diabetes (type I and II), tissue or organ rejection, multiple sclerosis, periodontal inflammation, periodontitis, pigmented villonodular synovitis, hepatitis, sinusitis, colon cancer, colorectal cancer, colitis-associated colon cancer, sporadic colorectal cancer, coronary artery disease, or Sjogren's syndrome (SS), obesity, chronic inflammation, pulmonary sarcoidosis, skin lesions, a CNS inflammatory disease, or an autoimmune disease.

131. The IL-34 inhibitor for use as claimed in claim 130, wherein said inflammatory disease is an inflammatory bowel disease.

132. The IL-34 inhibitor for use as claimed in claim 131, wherein the inflammatory bowel disease is selected from the group consisting of Crohn's disease, inflammatory Crohn's disease, fibrostricturing Crohn's disease, gastroduodenal Crohn's disease, Crohn's (granulomatous) colitis, ulcerative colitis, collagenous colitis, lymphocytic colitis, ischaemic colitis, diversion colitis, Behçet's disease, microscopic colitis, ulcerative proctitis, proctosigmoiditis, jejunoileitis, left-sided colitis, pancolitis, ileocolitis, ileitis, and indeterminate colitis.

133. The IL-34 inhibitor for use as claimed in claim 132, wherein the inflammatory bowel disease is inflammatory Crohn's disease.

134. The IL-34 inhibitor for use as claimed in claim 132, wherein the inflammatory bowel disease is fibrostricturing Crohn's disease.

135. An IL-34 inhibitor of any one of claims 76-89, or a pharmaceutically acceptable salt thereof, for use in the treatment of fibrosis.

136. The IL-34 inhibitor for use as claimed in claim 135, wherein the fibrosis is intestinal fibrosis.